

REMARKS

Claims 1-7, all the claims pending in the application, stand rejected. The previous amendment has been entered, including amendments to claims 1 and 2. The Examiner notes in the Response to Amendments at page 2 of the Office Action that the arguments and amendments are not persuasive. Applicant has amended claim 1 to better define the invention over the prior art.

Claim Rejections - 35 U.S.C. § 103

Claims 1-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Cabler (5,625,357) in view of Ledzius et al (5,323,157). Applicants would respectfully traverse this rejection.

At pages 2 and 3 of the Office Action, the Examiner repeats the previous basis for rejection of claims 1-7 as being unpatentable over Cabler (5,625,357) in view of Ledzius et al (5,323,157). However, the Examiner further notes that the plurality of generated weighted currents are added separately for inverted and non-inverted signals and outputted separately at an output side of the FIR filter. The Examiner refers to the switch connections B₀ and B₁ in Fig. 2 of Cabler for such addition of inverted and non-inverted currents and asserts that they are output at an output side of the FIR filter.

Applicant has considered the Examiner's position. Applicant respectfully submits that a key distinction between the prior art and the disclosed invention is that two constant current courses (8a 8b) are used in the disclosed filter. Each of the constant current sources is connected respectively to a common output line for the inverted and non-inverted outputs of the MOS transistors. Each of the constant current sources is coupled to a separate input to the differential full amplifier 6a.

The benefits that are derived from using separate current sources include greater stability.

Thus, claim 1 is now directed to an output filter for a delta sigma modulator. With reference to the exemplary embodiment of Fig. 1, the claimed filter comprises (1) first and second constant current source [8a, 8b] and (2) an FIR filter [4]. The FIR filter recited in the

Amendment under 37 C.F.R. § 1.116
Application No. 10/730,928

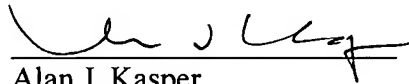
claim has (a) a plurality of delay elements $[F_1-F_n]$ arranged in cascade where (b) each element is operative to output data from the delta sigma modulator [2] by controlling currents from the constant current source on the basis of each of the output data. As a result, a plurality of weighted currents, that are weighted according to a filter characteristic, are generated. The weighted currents are added and outputted in an output side of the FIR filter.

Claims 2-7 would be patentable for the reasons given for claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


Alan J. Kasper
Registration No. 25,426

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

23373

CUSTOMER NUMBER

Date: March 28, 2006